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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,236	07/01/2003	Gary L. Brundage	pH-003	4966
27946	7590	05/05/2004	EXAMINER	
ARTHUR J. BEHIEL 6601 KOLL CENTER PARKWAY SUITE 245 PLEASANTON, CA 94566			NGUYEN, PHUONGCHI T	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,236

Applicant(s)

BRUNDAGE, GARY L.

Examiner

Phuongchi Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-20 is/are allowed.
- 6) ☒ Claim(s) 1, 3-4, and 11-12 is/are rejected.
- 7) ☒ Claim(s) 2, 5-10 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.

☒ *Attachments 1 & 2*

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Zarreli (US5122064).

In regarding to claim 1, Zarreli discloses a connector system (Attachment 1 and 2 of figure 3 and 7) comprising a first wiring board (20) having first wiring-board surface (A) supporting a first plurality of conductors (30); and second wiring-board surface (B) extending in a first plane (of 20) and supporting a second plurality of conductors (36); wherein at least one of the first plurality of conductors (30) is electrically connected to a corresponding one of the second plurality of conductors (36); second wiring board (12) having a third wiring-board surface (C) extending in a second plane (of 12) substantially perpendicular to the first plane (of 20) and supporting a third plurality of conductors (14); an elastomeric conductor (106) (column 6, lines 38-39) disposed between the first and second wiring boards (20, 12) in contact with ones of the second (36) and third (14) pluralities of conductors; and a support (50) connected to the first and second wiring boards (20, 12) and holding the elastomeric conductor (106) against the second (B) and third wiring-board surfaces (C).

In regarding to claim 6, Zarreli discloses the connector system further comprising a housing (computer housing) encompassing the first and a second wiring boards (20 and 12).

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In regarding to claim 8, Zarreli discloses the connector system further comprising a second conductor (36) contacting the housing (indirectly) and at least one of the third plurality of conductors (14) (electrically).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zarreli (US5122064) in view of Krajewski et al (US5211565).

In regarding to claim 3, Zarreli discloses the invention, but lacks a third wiring board. However, Krajewski et al teaches a third wiring board (another 12) having a fourth wiring-board surface (another upper surface of 12) extending in parallel with the second plane (of 12) and supporting a fourth plurality of conductors (another upper 82) (figures 2 and 3). It would have been obvious to one having ordinary skill at the time the invention was made to modify the connector of Zarreli by adding a third wiring board as taught by Krajewski et al for expanding connector system.

5. Claims 4 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarreli (US5122064).

In regarding to claim 4, Zarreli discloses the invention, but lacks the first plurality of concentric conductors. It would have been obvious to one having ordinary skill at the time the invention was made to modify the first plurality of conductors of Zarreli to be concentric; since applicant has not disclosed that the first plurality of conductors solve any stated problem or is for

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any particular purpose and it appears that the first plurality of concentric conductors would perform equally well with the first plurality of rectangular conductors.

In regarding to claim 9, Zarreli discloses the invention, but lacks the second conductor to be elastomeric. It would have been obvious to one having ordinary skill at the time the invention was made to modify the second conductor of Zarreli by making the second conductor to be elastomeric for increasing resilient conductive contact between the boards.

In regarding to claim 10, Zarreli discloses the connector system wherein the support (50) holds the second conductor (36) against the housing (computer housing) (indirectly).

In regarding to claim 11, Zarreli discloses the invention, but lacks at least one fastener attaching the support to the second wiring board. It would have been obvious to one having ordinary skill at the time the invention was made to duplicate the fastener (60) of Zarreli by attaching a different fastener between the support to the second wiring board for increasing the connection between the support and the second board.

In regarding to claim 12, Zarreli discloses the invention, but lacks a second elastomeric conductor. It would have been obvious to one having ordinary skill at the time the invention was made to add a second elastomeric conductor of Zarreli disposed against the first plurality of conductors; since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Allowable subject matter

6. Claims 14-20 are allowed.
7. Claims 2, 5, 7 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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8. The following is a statement of reasons for the indication of allowable subject matter:

In regarding to claim 2, the prior art fails to teach or suggest the connector system wherein the support clips to the first wiring board.

In regarding to claims 5 and 7, the prior art fails to teach or suggest the connector system wherein the first wiring board further includes recesses receiving the support/interior protrusion.

In regarding to claim 13, the prior art fails to teach or suggest the connector system comprising a retainer disposed against the first plurality conductors and supporting the second elastomeric conductor.

In regarding to claim 14, the prior art fails to teach or suggest a water monitoring system comprising a sensor assembly, a support connected to the first and second wiring boards and holding the elastomeric conductor against the second and third wiring-board surfaces arranged as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi Nguyen whose telephone number is (571) 272-2012. The examiner can normally be reached on 8:00AM-4:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PCN

May 3, 2004


P. AUSTIN BRADLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Attachment 1

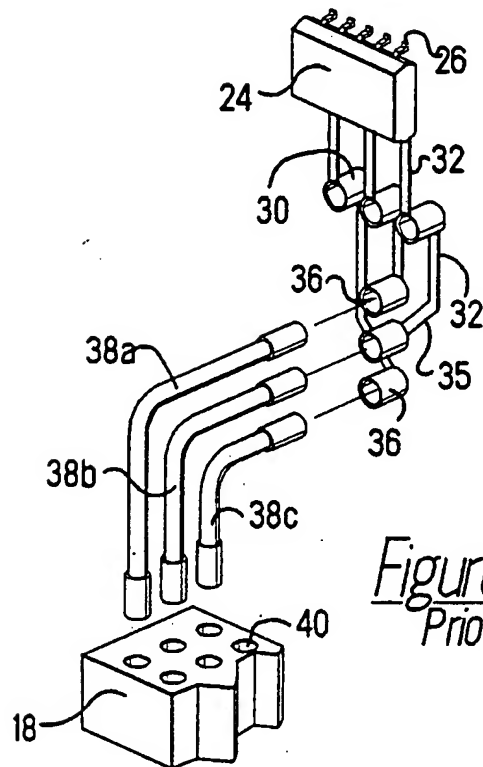


Figure 2
Prior Art

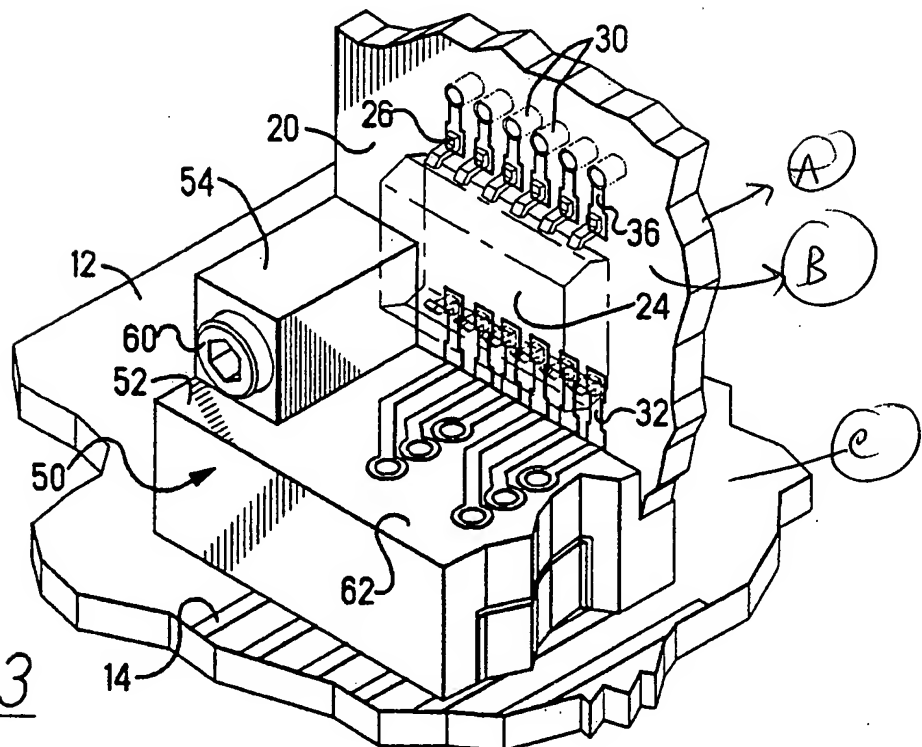


Figure 3

